any similar micro-organism present in the blood. Cultures were made and from these intravenous injections upon rabbits. When administered in any large quantities the animals were either seized with convulsions terminating in death, or with simple rigidity, contractions, dilation of pupils, etc., and after the crisis emission of urine, relaxation of muscles, lowering of temperature, torpid condition for about an hour, and then a return to normal conditions. The varying severity of the attacks was probably due to the difference in the virulence of the infection. It is to be hoped that further experiment will enable the control of the amount administered. To what place shall these micro-organisms be assigned? The most recent experiments would suggest that they be considered as micrococci presenting themselves in the form of diplococci, and short chainlets capable of extension so as to take on the forms of coccobacilli, diplobacilli and streptobacilli. The frequent junction of the parasites and the hematin, the pallor and alterations of the parasites during the crisis period, the disappearance of a certain quantity of hemoglobin, the modifications in the coloring and consistency of paroxysmal blood which have been observed for a long time, altogether indicate that, like the agent of paludism, the parasite under consideration, lives at the expense of the normal elements of the blood.

Taking into consideration the fact that rare or absent during long intervals between seizures, the parasite shows itself in increasing quantities before the attack, lessening or even disappearing after the convulsive crisis, the epileptic attack may be regarded as a series of infections in which the convulsive crisis is parallel to the fever crisis of malaria. This also explains the intermittent periods. The securing of cultures and the results of inoculation leave little doubt, writes the author, that the micro-organisms here described are the pathological agents of epilepsy and that the symptom-complex which characterizes the disease is a result of the irritative action which they exercise over the different nerve centers through the medium of the circulation.

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1. Progressive Muscular Atrophy (Aran-Duchenne type) with Intermittent and Temporary Contraction. Henri Meunier.
2. The Sensibility of the Skeleton. Max Egger.
3. A Case of Pellagra Accompanied by Retraction of the Palmar Aponeurosis. Parhon and M. Goldstein.

1. *Progressive Muscular Atrophy.*—This author relates the history of a patient aged forty-three years, a hotel porter. His antecedents gave no reason to suspect syphilitic affection or the result of alcoholic overindulgence. The first indication of the presence of the disease was a gradually increasing weakness of the right hand, which soon made writing impossible. The paralysis gradually progressed up the arm to the shoulder, but was not accompanied by any pain, except occasionally involuntary spasms with sensation of heat and smarting. From these symptoms the diagnosis of syringomyelia was made and electrical treatment applied. The paralysis extended to the left hand and then to the right leg. The examination made at this point revealed no loss of the different sensibilities. The right arm was limp and emaciated, the fingers almost powerless, all movement difficult or impossible. The left hand only was affected and that in a less degree than the right. The legs were weak, often contracting during the night, and straightened with difficulty on arising, so that for the first hours of the day the patient was

unable to place the sole of the foot upon the floor and was compelled to walk on his toes. There was no tremor, but he had fibrillary spasms which were plainly visible. The application of electricity gave the following general results: faradic excitability was less in all the muscles of the right side compared with those of the left; voltaic excitability seemed generally diminished. The two patellar reflexes were perfectly normal, and the ulnar equally so. The left wrist reflex was normal but the right inappreciable. Apart from the muscular atrophy itself there were no trophic disturbances. There were no vasomotor disturbances, yet the patient was subject to excessive sweating, occurring almost without an exciting cause and often accompanied by a sensation of heat in the right shoulder. The author sums up these symptoms, which in his opinion give a clear case of Aran-Duchenne's disease, and by a careful comparison eliminates the first diagnosis of syringomyelia, and several others that might at first seem to be indicated. The phenomena mentioned of difficulty in extending the leg when it contracted during the night, and the inability to place the sole of the foot on the ground would seem to be a new one in the history of this disease, although instances somewhat similar have been recorded. It is somewhat difficult of explanation, for it is evidently not a sclerotic retraction as it occurred before the atrophy of the limb. It is the author's opinion that it was produced by a slight extension of the lateral cord in a certain part of his dorsolumbar medulla (pyramidal tract) in the process of sclerosis.

2. *The Sensibility of the Skeleton.*—Our knowledge of the degree of sensibility of which the bones are capable is as yet very limited. The usual method of percussion can only be satisfactorily employed when the intervening skin and muscles are entirely anesthetic. This author has previously demonstrated that the molecular vibrations of a tuning fork are perceived by the bones when the intervening tissue is unaffected. In some cases of tabes the bones have been found to be without sensibility when it was normal in the skin and muscles, and in one case of Pott's disease with absolute anesthesia in the three modes of superficial sensation in the lower limbs, the vibrations of the tuning-fork were plainly felt by the bones. According to the opinion of this author the perception of segmentary attitudes of the limbs is not due to muscular sensibility, but he admits the question is not definitely settled. He has, however, often observed cases where there was loss of perception of segmentary attitudes, but the patient still retained the sensation of vibration upon the bones. The examination of a case of lateral amyotrophic sclerosis in which the two upper extremities were affected by excessive muscular atrophy showed that vibration just perceptible in a normal individual was quite as plainly perceived in the atrophied limbs of these patients. Various experiments have gone far to prove that the sensation of vibration is felt only by that part of the skeleton upon which the tuning fork is directly placed. Anesthesia of some parts often exists when other parts are unaffected. In cases of painless spontaneous fractures in tabes and other affections these fractures were anesthetic to vibrations, although in one case the sensation was found to be not only present but exaggerated.

3. *Pellagra Accompanied by Retraction of the Palmar Aponeurosis.*—These authors relate the history of the case of a man of twenty-seven years. At the age of six years he had been subject to paroxysms during the night, the precise nature of which could not be learned. These had ceased about his sixteenth year without treatment, which was thought would hardly admit the hypothesis that they were epileptic. The patient gave no evidence of hysteria. Perhaps the result of nightmare following

a fright. A little later he was often attacked by severe cramps in the left leg, and following these the characteristic pellagris erythema put in an appearance. There was also diarrhea for three years often accompanied by violent abdominal pains, and gradually the left hand became deformed and useless. The physical examination showed a tendency to carry the head a little to the left, but it was probably due to habit as the patient could place it in a normal position without difficulty. The left forearm was slightly drawn out of position and the fingers of the left hand much contracted, so that an attempt to straighten them caused pain to the patient. The integuments of the two hands were of a purplish color on both surfaces and always covered with sweat. This color was present a little less deep upon the thighs and legs. Sensations were all normal, although vision was slightly affected, a not uncommon occurrence in pellagra. Most of the reflexes were normally present except in the left forearm and hand. The memory appeared to be considerably enfeebled. The power of abstraction and mental representation was greatly altered. The patient believed himself persecuted by his relatives. There was also a tendency toward megalomania. It is the opinion of the authors that the deformity of the left hand was due to a retraction of the palmar aponeurosis, as the fact that the patient could easily move the second and third phalanges of the middle and right little finger removed the possibility of contraction or paralysis. In their opinion it was a trophic affection due to an alteration in the nervous system, although they were able only to conjecture the location of the lesion which caused it. It may possibly depend upon a lesion of the peripheral nerves, or upon alterations of the cells of the gray substance of the periependyma. JELLIFFE.

Archiv. für Psychiatrie und Nervenkrankheiten.

(1902, Vol. 36, Part I.)

1. Recent and Old Investigation of the Brain. EDWARD HITZIG.
2. A Contribution to the Pathology of Porencephaly. H. ZINGERLE.
3. Pachymeningitis Cervicalis Hypertrophica and Pachymeningitis Interna Hemorrhagica with Chronic Progressive Dementia in the Young. M. PROBST.
4. A Contribution to the Etiology of the Periodical Psychoses. CLEMENS NEISSER.
5. Metastatic Abscesses in the Central Nervous System. R. CASSIRER.
6. Diffuse Hemorrhagic Encephalo-myelo-meningitis. MARTIN BARTELS.
7. Central Neurofibromatosis and Tumors of the Cerebello-pontine Angle. HENNEBERG and MAX KOCH.

1. *Recent and Old Brain Researches.*—A detailed study of the methods and results of brain investigations and experiments. Too extensive and detailed to admit of a satisfactory short summary, but withal an important series of contributions.

2. *Contribution to the Pathology of Porencephaly.*—The brain was obtained from a laboring man who, during life, showed no evidences of paralysis and whose death was caused by an injury. On the outer surface of the left hemisphere there is an extensive defect (*einsenkung*) including the greater portion of the central convolutions, the supra-marginal gyrus and the posterior portion of the second and third frontal convolutions, the area corresponding to the second and third branches of the Sylvian artery. Over the depression the meninges were thickened and the cortex atrophic (microgyra). The deficiency exists chiefly in the subcortical white substance, which is replaced by a dense scar tissue. A